Response to Office Action mailed June 21, 2010

Applicants: Heeres, et al. Application No.: 10/537,037 Page 2 of 7

AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions of listing of claims, and listing of claims in the application.

Please cancel claims 12, 15 and 17; and

Please amend claims 10, 16 and 23 as follows:

1-9 (Cancelled)

- (Currently amended) A method for breeding and selecting a potato having increased protein content comprising
 - (a) crossing a first parent potato plant having at least one amf-allele with a second parent potato plant having at least one amf-allele to produce progeny;
 - (b) selecting and testing said progeny for the presence of at least one amf-allele and for increased protein content; wherein said testing for protein content is performed by determining protein content of tubers or root caps of said progeny; and
 - (c) selecting progeny having at least one being homozygous for the amf-allele with a protein content higher than detected in said first parent or said second parent a plant heterozygous for the amf-allele.
- 11. (Canceled)
- 12. (Canceled)
- 13. (Canceled)
- (Canceled)

Response to Office Action mailed June 21, 2010

Applicants: Heeres, et al. Application No.: 10/537,037 Page 3 of 7

15. (Canceled).

16. (Currently amended) A method for increasing protein storage in a potato comprising

- (a) crossing a first parent potato plant having at least one amf-allele with a second parent potato plant having at least one amf-allele to produce progeny;
- (b) selecting and testing said progeny for the presence of at least one amf-allele and for <u>increased</u> protein content; wherein said testing for protein content is performed by determining protein content of tubers or root caps of said progeny; and
- (c) selecting progeny having at least one being homozygous for the amf-allele with a protein content higher than detected in said first parent or said-second parent a plant heterozygous for the amf-allele.

17. (Canceled)

- 18. (Previously presented) The method according to claim 16, wherein the protein content of tubers of the selected progeny is at least 0.9% m/m.
- 19. (Previously presented) The method according to claim 18, wherein the protein content of tubers of the selected progeny is at least 1.2% m/m.
- 20. (Previously presented) The method according to claim 19, wherein the protein content of tubers of the selected progeny is at least 1.5% m/m.
- (Previously presented) The method according to claim 16, wherein coagulating protein versus starch ratio of the selected progeny is at least 45 kg/ton.
- 22. (Previously presented) The method according to claim 21, wherein coagulating protein versus starch ratio of the selected progeny is at least 90 kg/ton.

Response to Office Action mailed June 21, 2010

Applicants: Heeres, et al. Application No.: 10/537,037 Page 4 of 7

23. (Currently amended) The method according to claim 16, further comprising providing transforming said selected progeny with a gene encoding a heterologous protein.

24. (Previously presented) The method according to claim 23, wherein the heterologous protein is selected from the group consisting of DHPS, PMC, vicilin, SCR1, Fcor2, TLRP, multicystatine, yZein, 10kDa Zein, 2S albumin, TIP13, PTGRP, PA1b, SE60 and PCP1.